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09/942,837	08/29/2001	Shawn R. Gettemy	PALM-3651	8549
7590 08/30/2010 WAGNER, MURABITO & HAO LLP Third Floor Two North Market Street San Jose, CA 95113			EXAMINER PIZZALI, JEFFREY J	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/942,837

**Applicant(s)**

GETTEMY ET AL.

**Examiner**

Jeff Piziali

**Art Unit**

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 69-99 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 69-99 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Statement(s) (PTO/SF/42)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on *30 June 2010* has been entered.

***Drawings***

2. The drawings were received on *30 June 2010*. These drawings are acceptable.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. *Claims 69-99* are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claim 69 recites the subject matter: "*a display comprising a display surface and a first side, wherein said display surface and said first side are not planar*" (lines 5-6).

Claim 79 recites the subject matter: "*a display device disposed in said housing, wherein said display device comprises a display surface and a first side, wherein said display surface and said first side are not planar*" (lines 3-5).

Claim 89 recites the subject matter: "*a display device disposed in said housing, wherein said display device comprises a display surface and a first side, wherein said display surface and said first side are not planar*" (lines 5-7).

Any negative limitation or exclusionary proviso must have basis in the original disclosure. See *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion. See MPEP 2173.05(i).

The original disclosure of the invention does not teach a display surface and a first side not being planar, as instantly claimed.

5. *Claims 69-99* are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 69 recites the subject matter: "*a display comprising a display surface and a first side, wherein said display surface and said first side are not planar*" (lines 5-6).

Claim 79 recites the subject matter: "*a display device disposed in said housing, wherein said display device comprises a display surface and a first side, wherein said display surface and said first side are not planar*" (lines 3-5).

Claim 89 recites the subject matter: "*a display device disposed in said housing, wherein said display device comprises a display surface and a first side, wherein said display surface and said first side are not planar*" (lines 5-7).

Any negative limitation or exclusionary proviso must have basis in the original disclosure. See *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion. See MPEP 2173.05(i).

The original disclosure of the invention is not enabling for a display surface and a first side not being planar, as instantly claimed.

6. The remaining claims are rejected under 35 U.S.C. 112, first paragraph, as being dependent upon rejected base claims.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. *Claims 69-99* are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 69 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "***a digitizer disposed above said display and operable to provide an input to said portable electronic device responsive to a deformation of said digitizer***" (lines 7-9).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "*any digitizer*" and "*a digitizer operable to provide an input.*"

An omitted structural cooperative relationship results from the claimed subject matter: "***a cover disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said cover***" (lines 10-12).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "*any cover*" and "*a cover operable to enable deformation of a digitizer.*"

10. The term "***a flexible thermoplastic film***" in claim 70 (line 2) is a relative term which renders the claim indefinite.

The term "***flexible***" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In materials science, the amount of deformation an object can be bent, twisted, lengthened or compressed due to a force or stress is called the strain. The instant application is silent on the matter of the minimum value of strain a material may endure before breakage. Absent a definite teaching in the instant claims and specification of what constitutes a "**flexible**" material layer, one having ordinary skill in the art could arguably take the position that flexibility is an inherent characteristic of all solid bodied materials. Much like all liquids have some degree of viscosity -- so too do all solids have some degree of flexibility.

11. Claim 71 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "**said cover is operable to deflect under external pressure**" (lines 3-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "*any cover*" and "*a cover operable to deflect*."

12. Claim 71 recites the limitation "**external pressure**" (line 4). There is insufficient antecedent basis for this limitation in the claim.

It would be unclear to one having ordinary skill in the art what earlier recited element(s), if any, the claimed "pressure" is intended to be "*external*" to. *External* to what? The device? The cover? The digitizing element? The conductive polymer?

13. Claim 72 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "***a plurality of electrodes and traces operable to register a point of contact when said conductive polymer makes contact with said digitizing element***" (lines 2-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "*any electrodes and traces*" and "*electrodes and traces operable to register a point of contact*."

14. Claim 76 recites the limitation "***said cover***" (lines 3 and 4). There is insufficient antecedent basis for this limitation in the claim.

It would be unclear to one having ordinary skill in the art whether this limitation is intended to refer to the earlier recited "*a cover*" (claim 69, line 10) and/or "*a second cover*" (claim 76, line 3).

15. Claim 79 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.



An omitted structural cooperative relationship results from the claimed subject matter: "***a digitizer disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer***" (lines 6-8).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "*any digitizer*" and "*a digitizer operable to provide an input.*"

An omitted structural cooperative relationship results from the claimed subject matter: "***said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover***" (lines 9-11).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "*any cover*" and "*a cover operable to enable deformation of a digitizer.*"

16. The term "***a flexible thermoplastic film***" in claim 80 (*line 2*) is a relative term which renders the claim indefinite.

The term "***flexible***" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In materials science, the amount of deformation an object can be bent, twisted, lengthened or compressed due to a force or stress is called the strain. The instant application is silent on the matter of the minimum value of strain a material may endure before breakage.

Absent a definite teaching in the instant claims and specification of what constitutes a "**flexible**" material layer, one having ordinary skill in the art could arguably take the position that flexibility is an inherent characteristic of all solid bodied materials. Much like all liquids have some degree of viscosity -- so too do all solids have some degree of flexibility.

17. Claim 81 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter:  
**"said first cover is operable to deflect under external pressure"** (lines 3-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "*any cover*" and "*a cover operable to deflect*."

18. Claim 81 recites the limitation "**external pressure**" (line 4). There is insufficient antecedent basis for this limitation in the claim.

It would be unclear to one having ordinary skill in the art what earlier recited element(s), if any, the claimed "pressure" is intended to be "*external*" to. *External* to what? The device? The cover? The digitizing element? The conductive polymer?

19. Claim 82 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "***a plurality of electrodes and traces operable to register a point of contact when said conductive polymer makes contact with said digitizing element***" (lines 2-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "*any electrodes and traces*" and "*electrodes and traces operable to register a point of contact*."

20. Claim 89 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "***a digitizer disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer***" (lines 8-10).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "*any digitizer*" and "*a digitizer operable to provide an input*."

An omitted structural cooperative relationship results from the claimed subject matter: *"said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover"* (lines 11-13).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between *"any cover"* and *"a cover operable to enable deformation of a digitizer."*

21. The term *"a flexible thermoplastic film"* in claim 90 (line 2) is a relative term which renders the claim indefinite.

The term *"flexible"* is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In materials science, the amount of deformation an object can be bent, twisted, lengthened or compressed due to a force or stress is called the strain. The instant application is silent on the matter of the minimum value of strain a material may endure before breakage. Absent a definite teaching in the instant claims and specification of what constitutes a *"flexible"* material layer, one having ordinary skill in the art could arguably take the position that flexibility is an inherent characteristic of all solid bodied materials. Much like all liquids have some degree of viscosity -- so too do all solids have some degree of flexibility.

22. Claim 91 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: ***"said first cover is operable to deflect under external pressure"*** (lines 3-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between *"any cover"* and *"a cover operable to deflect."*

23. Claim 91 recites the limitation ***"external pressure"*** (line 4). There is insufficient antecedent basis for this limitation in the claim.

It would be unclear to one having ordinary skill in the art what earlier recited element(s), if any, the claimed "pressure" is intended to be *"external"* to. *External* to what? The device? The cover? The digitizing element? The conductive polymer?

24. Claim 92 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: ***"a plurality of electrodes and traces operable to register a point of contact when said conductive polymer makes contact with said digitizing element"*** (lines 2-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "*any electrodes and traces*" and "*electrodes and traces operable to register a point of contact.*"

25. Claim 99 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "***said border is operable to conceal at least one component of said portable electronic device***" (lines 1-2).

It would be unclear to one having ordinary skill in the art what particular structure difference, if any, is intended to distinguish between "*any cover*" and "*a cover operable to conceal at least one component.*"

26. Claim 99 recites the limitation "***at least one component of said portable electronic device***" (line 2). There is insufficient antecedent basis for this limitation in the claim.

It would be unclear to one having ordinary skill in the art what earlier recited "*component(s),*" if any, this limitation is intended to refer to.

27. The remaining claims are rejected under 35 U.S.C. 112, second paragraph, as being dependent upon rejected base claims.

28. The claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

As a courtesy to the Applicant, the examiner has attempted to also make rejections over prior art -- based on the examiner's best guess interpretations of the invention that the Applicant is intending to claim.

However, the indefinite nature of the claimed subject matter naturally hinders the Office's ability to search and examine the application.

Any instantly distinguishing features and subject matter that the Applicant considers to be absent from the cited prior art is more than likely a result of the indefinite nature of the claims.

The Applicant is respectfully requested to correct the indefinite nature of the claims, which should going forward result in a more precise search and examination.

***Claim Rejections - 35 USC § 103***

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

30. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

31. Claims 69, 70, 73, 74, 76-80, 83, 84, 86-90, 93, 94, and 96-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Adair (US 5,812,188 A)* in view of *Logan et al (US 4,821,029 A)*, the instant *Application's Admitted Prior Art (AAPA)*, and *Nakanishi et al (US 6,590,622 B1)*.

Please note: Claim order has been rearranged in the Office action to better reflect the order of specificity of the pending claims (*going from broadest to more specific claim language*).

Regarding claim 79, *Adair* discloses a portable electronic device [*e.g., Fig. 4*] comprising:

- a housing comprising a first cover [*e.g., Fig. 4: 59*];
- a display device [*e.g., Fig. 4: 54*] disposed in said housing,
- wherein said display device comprises a display surface [*e.g., Fig. 4: top surface of 54*] and a first side [*e.g., Fig. 4: left-side surface of 54*],
- wherein said display surface and said first side are not planar;
- a digitizer [*e.g., Fig. 4: 56*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and
- wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,



wherein a first portion [e.g., *Fig. 4: top portion of 59*] of said first cover overlaps said display surface,

wherein a second portion [e.g., *Fig. 4: left-side portion of 59*] of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend [e.g., *Fig. 4: 59 at 42*] joining said first and second portions (*see the entire document, including Column 5, Line 59 - Column 6, Line 37*).

Should it be shown that **Adair** discloses the subject matter of *a digitizer disposed above said display device*, as instantly claimed, with insufficient specificity:

**Logan** discloses a portable electronic device [e.g., *Fig. 1*] comprising:

a display device [e.g., *Fig. 1: 1'*]; and

a digitizer [e.g., *Fig. 1''*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (*see the entire document, including Column 3, Lines 30-60*).

**Adair** and **Logan** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply **Logan's** digitizer arrangement and control techniques to **Adair's** device, so as to provide a flexible touch screen process and system that incorporates, together with the appropriate processing, a self-sufficiency of control to the touch screen.

Should it be shown that even **Logan** discloses the subject matter of *a digitizer disposed above said display device*, as instantly claimed, with insufficient specificity:

The **APA** discloses a portable electronic device [*e.g., Fig. 1*] comprising:

a housing comprising a first cover [*e.g., Fig. 1: 105, 110*];

a display device [*e.g., Fig. 1: 140*] disposed in said housing,

wherein said display device comprises a display surface [*e.g., Fig. 1: top surface of 140*] and a first side [*e.g., Fig. 1: left-side surface of 140*],

wherein said display surface and said first side are not planar;

a digitizer [*e.g., Fig. 1: 120, 130, 170*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion [*e.g., Fig. 1: 110*] of said first cover overlaps said display surface,

wherein a second portion [*e.g., Fig. 1: 105*] of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend [*e.g., Fig. 1: 105's bend*] joining said first and second portions (*see the entire document, including Fig. 2; Page 1, Line 11 - Page 5, Line 21*).

**Adair, Logan**, and the **AAPA** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply the **AAPA's** digitizer arrangement and control techniques to **Adair's** device, so as to make use of a typical, well known, and commonly understood resistive digitizer mechanism.

In one embodiment, **Adair** states, "*As best seen in FIG. 4a, monitor module 50 is completely encapsulated within a sealing material 59 such as acrylic so that the monitor module is isolated from the sterile field of the operating room*" (see Column 6, Lines 7-11).

**Adair** discloses, "*The enclosure may be flexible or rigid... In some embodiments, the body is flexible*" (see the Abstract). **Adair** also claims, "*a sterile enclosure made of a flexible material substantially impervious to liquid and gas*" (see claim 1).

Therefore, **Adair's** flexible cover will be operable to enable deformation of the underlying digitizer, as instantly claimed.

However, should it be shown that **Adair** discloses the subject matter of *a cover operable to enable deformation of the digitizer*, as instantly claimed, with insufficient specificity:

**Nakanishi** discloses a portable electronic device (e.g., see Column 7, Line 65) comprising:

a housing comprising a first cover [e.g., Fig. 1: *movable/deformable/pressable acrylic resin layer 19*];

a display device (*e.g., see Column 1, Lines 5-15*) disposed in said housing, wherein said display device comprises a display surface and a first side, wherein said display surface and said first side are not planar; a digitizer [*e.g., Fig. 1: movable conductor 18 + fixed conductor 14*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (*e.g., see Column 1, Lines 43-57*); and wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover (*e.g., see Column 1, Lines 43-57 and Column 3, Lines 50-52*), wherein a first portion of said first cover overlaps said display surface (*see the entire document, including Column 1, Line 5 - Column 2, Line 46 and Column 3, Line 10 - Column 8, Line 10*).

***Adair, Logan***, the ***AAPA***, and ***Nakanishi*** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***Nakanishi's*** flexibly deformable resin layer to form ***Adair's*** cover, so as to protect the underlying digitizer from damage due to finger and/or stylus presses (*e.g., see Nakanishi: Column 3, Line 44*).

Regarding claim 80, ***Adair*** discloses said first cover further comprises a flexible thermoplastic film [*e.g., Fig. 4: 59*] and

a supporting structure [e.g., Fig. 4: 42] coupled to said flexible thermoplastic film (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 83, **Adair** discloses said first cover further comprises a border [e.g., Fig. 4: 59] (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 84, the **AAPA** discloses said digitizer comprises electrical traces [e.g., Fig. 1; 180] and circuits [e.g., Fig. 1; 160] along a periphery, and wherein a border [e.g., Fig. 1; 105] overlaps said electrical traces and circuits (e.g., see Fig. 2; Page 1, Line 11 - Page 5, Line 21).

Regarding claim 86, **Adair** discloses said housing further comprises a second cover [e.g., Fig. 4: 44], and wherein said first cover and said second cover enclose said display device and said digitizer (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 87, **Adair** discloses said first cover comprises at least one transparent portion (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 88, the **AAPA** discloses said digitizer comprises a resistive digitizer (e.g., see Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21).

Regarding claim 89, this claim is rejected by the reasoning applied in rejecting claim 79; furthermore, **Logan** discloses a processor [e.g., *Fig. 1: 5*]; and  
a memory [e.g., *Fig. 1: 5*] (e.g., see *Column 3, Lines 30-60*).

Regarding claim 90, this claim is rejected by the reasoning applied in rejecting claim 80.

Regarding claim 93, this claim is rejected by the reasoning applied in rejecting claim 83.

Regarding claim 94, this claim is rejected by the reasoning applied in rejecting claim 84.

Regarding claim 96, this claim is rejected by the reasoning applied in rejecting claim 86.

Regarding claim 97, this claim is rejected by the reasoning applied in rejecting claim 87.

Regarding claim 98, this claim is rejected by the reasoning applied in rejecting claim 88.

Regarding claim 69, this claim is rejected by the reasoning applied in rejecting claims 79 and 89; furthermore, **Adair** discloses a cover [e.g., *Fig. 4: 59*] (e.g., see *Column 5, Line 59 - Column 6, Line 37*).

Regarding claim 70, this claim is rejected by the reasoning applied in rejecting claim 80.

Regarding claim 73, this claim is rejected by the reasoning applied in rejecting claim 83.

Regarding claim 74, this claim is rejected by the reasoning applied in rejecting claim 84.

Regarding claim 76, this claim is rejected by the reasoning applied in rejecting claim 86.

Regarding claim 77, this claim is rejected by the reasoning applied in rejecting claim 87.

Regarding claim 78, this claim is rejected by the reasoning applied in rejecting claim 88.

Regarding claim 99, the *AAPA* discloses said border [*e.g.*, *Fig. 2: 210*] is operable to conceal at least one component [*e.g.*, *Fig. 2: 160*] of said portable electronic device (*e.g.*, see *Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21*).

32. Claims 71, 72, 81, 82, 91, and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Adair (US 5,812,188 A)*, *Logan et al (US 4,821,029 A)*, the instant *Application's Admitted Prior Art (AAPA)*, and *Nakanishi et al (US 6,590,622 B1)* as applied respectively to claims 69, 79, and 89 above, and further in view of *Conroy et al (US 5,686,705 A)*.

Regarding claim 81, *Adair*, *Logan*, and the *AAPA* do not appear to expressly disclose a *conductive polymer*, as instantly claimed.

However, the **AAPA** discloses said digitizer comprises a conductive film made of indium tin oxide [*e.g.*, *Fig. 1; 120*] disposed above a digitizing element [*e.g.*, *Fig. 1; 130*] (*e.g.*, *see Fig. 2; Page 3, Line 11 - Page 5, Line 11*).

Moreover, **Conroy** discloses substituting conductive digitizer wires with a conductive polymer composite, such as conductive plastic (*see the entire document, including Column 3, Lines 9-30, Column 4, Lines 21-32, Column 5, Line 55 - Column 6, Line 10, and Column 8, Lines 37-40*).

**Adair, Logan**, the **AAPA**, and **Conroy** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Conroy's** conductive polymer in place of the **AAPA's** conductive film, so as to provide a rugged and reliable electronic device.

Regarding claim 82, the **AAPA** discloses said digitizer further comprises a plurality of electrodes [*e.g.*, *Fig. 1; 160*] and traces [*e.g.*, *Fig. 1; 180*] operable to register a point of contact when said conductor makes contact with said digitizing element (*e.g.*, *Page 3, Line 11 - Page 5, Line 11*).

Regarding claim 91, this claim is rejected by the reasoning applied in rejecting claim 81.

Regarding claim 92, this claim is rejected by the reasoning applied in rejecting claim 82.



Regarding claim 71, this claim is rejected by the reasoning applied in rejecting claim 81.

Regarding claim 72, this claim is rejected by the reasoning applied in rejecting claim 82.

33. *Claims 75, 85, and 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adair (US 5,812,188 A), Logan et al (US 4,821,029 A), the instant Application's Admitted Prior Art (AAPA), and Nakanishi et al (US 6,590,622 B1) as applied respectively to claims 69, 79, and 89 above, and further in view of Barkan et al (US 3,757,322 A).*

Regarding claim 85, *Adair* discloses a plurality of buttons [e.g., *Fig. 4: 56*] (e.g., *see Column 5, Line 59 - Column 6, Line 37*).

And the *AAPA* discloses said cover comprises indentations [e.g., *Fig. 1; 150, icon sheet*] to indicate button functions (e.g., *see Page 3, Line 11 - Page 5, Line 11*).

However, should it be shown that *Adair*, *Logan*, and the *AAPA* do not disclose *button indentations*, as instantly claimed:

*Barkan* discloses a plurality of buttons [e.g., *Fig. 3: 46*]; and wherein a first cover [e.g., *Fig. 3: 58*] comprises indentations [e.g., *Fig. 3: formed between 60, 62*],

wherein each of said indentations corresponds to a respective button of said plurality of buttons (*see the entire document, including Fig. 5; Column 14, Line 65 - Column 18, Line 65*).

*Adair*, *Logan*, the *AAPA*, and *Barkan* are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use *Barkan's* button indentations to correspond with *Adair's* buttons, so as to provide a tactile feel to the user for distinguishing between adjacent buttons.

Regarding claim 95, this claim is rejected by the reasoning applied in rejecting claim 85.

Regarding claim 75, this claim is rejected by the reasoning applied in rejecting claim 85.

### ***Double Patenting***

34. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re*

*Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

35. *Claims 69, 70, 73, 74, 76-80, 83, 84, 86-90, 93, 94, and 96-99 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,992,659 in view of Adair (US 5,812,188 A), Logan et al (US 4,821,029 A), the instant Application's Admitted Prior Art (AAPA), and Nakanishi et al (US 6,590,622 B1).*

Regarding claim 79, **U.S. Patent No. 6,992,659** discloses a portable electronic device comprising:

- a housing comprising a first cover [e.g., *single piece device enclosure*];
- a display device [e.g., *flat panel display screen*] disposed in said housing,
- wherein said display device comprises a display surface and a first side,
- wherein said display surface and said first side are not planar;

a digitizer [e.g., *optical sensor*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion of said first cover overlaps said display surface,

wherein a second portion of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend joining said first and second portions (e.g., *see claims 1-18*).

Should it be shown that ***U.S. Patent No. 6,992,659*** discloses a *digitizer*, as instantly claimed, with insufficient specificity:

***Adair*** discloses a portable electronic device [e.g., *Fig. 4*] comprising:  
a housing comprising a first cover [e.g., *Fig. 4: 59*];  
a display device [e.g., *Fig. 4: 54*] disposed in said housing,  
wherein said display device comprises a display surface [e.g., *Fig. 4: top surface of 54*]  
and a first side [e.g., *Fig. 4: left-side surface of 54*],  
wherein said display surface and said first side are not planar;  
a digitizer [e.g., *Fig. 4: 56*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion [*e.g., Fig. 4: top portion of 59*] of said first cover overlaps said display surface,

wherein a second portion [*e.g., Fig. 4: left-side portion of 59*] of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend [*e.g., Fig. 4: 59 at 42*] joining said first and second portions (*see the entire document, including Column 5, Line 59 - Column 6, Line 37*).

***U.S. Patent No. 6,992,659*** and ***Adair*** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply ***Adair's*** digitizer arrangement and control techniques to ***U.S. Patent No. 6,992,659's*** device, so as to provide touch sensitive endoscopic functionalities.

Should it be shown that ***Adair*** discloses the subject matter of *a digitizer disposed above said display device*, as instantly claimed, with insufficient specificity:

***Logan*** discloses a portable electronic device [*e.g., Fig. 1*] comprising:

a display device [*e.g., Fig. 1: 1'*]; and

a digitizer [e.g., *Fig. 1"*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (*see the entire document, including Column 3, Lines 30-60*).

**U.S. Patent No. 6,992,659, *Adair*** and ***Logan*** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply ***Logan's*** digitizer arrangement and control techniques to ***Adair's*** device, so as to provide a flexible touch screen process and system that incorporates, together with the appropriate processing, a self-sufficiency of control to the touch screen.

Should it be shown that even ***Logan*** discloses the subject matter of *a digitizer disposed above said display device*, as instantly claimed, with insufficient specificity:

The ***AAPA*** discloses a portable electronic device [e.g., *Fig. 1*] comprising:  
a housing comprising a first cover [e.g., *Fig. 1: 105, 110*];  
a display device [e.g., *Fig. 1: 140*] disposed in said housing,  
wherein said display device comprises a display surface [e.g., *Fig. 1: top surface of 140*]  
and a first side [e.g., *Fig. 1: left-side surface of 140*],  
wherein said display surface and said first side are not planar;  
a digitizer [e.g., *Fig. 1: 120, 130, 170*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion [e.g., *Fig. 1: 110*] of said first cover overlaps said display surface,

wherein a second portion [e.g., *Fig. 1: 105*] of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend [e.g., *Fig. 1: 105's bend*] joining said first and second portions (*see the entire document, including Fig. 2; Page 1, Line 11 - Page 5, Line 21*).

***U.S. Patent No. 6,992,659, Adair, Logan***, and the ***AAPA*** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply the ***AAPA's*** digitizer arrangement and control techniques to ***Adair's*** device, so as to make use of a typical, well known, and commonly understood resistive digitizer mechanism.

In one embodiment, ***Adair*** states, "*As best seen in FIG. 4a, monitor module 50 is completely encapsulated within a sealing material 59 such as acrylic so that the monitor module is isolated from the sterile field of the operating room*" (see Column 6, Lines 7-11).

***Adair*** discloses, "*The enclosure may be flexible or rigid... In some embodiments, the body is flexible*" (see the Abstract). ***Adair*** also claims, "*a sterile enclosure made of a flexible material substantially impervious to liquid and gas*" (see claim 1).

Therefore, **Adair's** flexible cover will be operable to enable deformation of the underlying digitizer, as instantly claimed.

However, should it be shown that **Adair** discloses the subject matter of *a cover operable to enable deformation of the digitizer*, as instantly claimed, with insufficient specificity:

**Nakanishi** discloses a portable electronic device (*e.g., see Column 7, Line 65*) comprising:

a housing comprising a first cover [*e.g., Fig. 1: movable/deformable/pressable acrylic resin layer 19*];

a display device (*e.g., see Column 1, Lines 5-15*) disposed in said housing, wherein said display device comprises a display surface and a first side, wherein said display surface and said first side are not planar;

a digitizer [*e.g., Fig. 1: movable conductor 18 + fixed conductor 14*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (*e.g., see Column 1, Lines 43-57*); and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover (*e.g., see Column 1, Lines 43-57 and Column 3, Lines 50-52*),

wherein a first portion of said first cover overlaps said display surface (*see the entire document, including Column 1, Line 5 - Column 2, Line 46 and Column 3, Line 10 - Column 8, Line 10*).



*U.S. Patent No. 6,992,659, Adair, Logan*, the *AAPA*, and *Nakanishi* are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use *Nakanishi's* flexibly deformable resin layer to form *Adair's* cover, so as to protect the underlying digitizer from damage due to finger and/or stylus presses (*e.g., see Nakanishi: Column 3, Line 44*).

Regarding claim 80, *Adair* discloses said first cover further comprises a flexible thermoplastic film [*e.g., Fig. 4: 59*] and a supporting structure [*e.g., Fig. 4: 42*] coupled to said flexible thermoplastic film (*e.g., see Column 5, Line 59 - Column 6, Line 37*).

Regarding claim 83, *Adair* discloses said first cover further comprises a border [*e.g., Fig. 4: 59*] (*e.g., see Column 5, Line 59 - Column 6, Line 37*).

Regarding claim 84, the *AAPA* discloses said digitizer comprises electrical traces [*e.g., Fig. 1: 180*] and circuits [*e.g., Fig. 1: 160*] along a periphery, and wherein a border [*e.g., Fig. 1: 105*] overlaps said electrical traces and circuits (*e.g., see Fig. 2; Page 1, Line 11 - Page 5, Line 21*).

Regarding claim 86, *Adair* discloses said housing further comprises a second cover [*e.g., Fig. 4: 44*], and

wherein said first cover and said second cover enclose said display device and said digitizer (*e.g., see Column 5, Line 59 - Column 6, Line 37*).

Regarding claim 87, **Adair** discloses said first cover comprises at least one transparent portion (*e.g., see Column 5, Line 59 - Column 6, Line 37*).

Regarding claim 88, the **AAPA** discloses said digitizer comprises a resistive digitizer (*e.g., see Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21*).

Regarding claim 89, this claim is rejected by the reasoning applied in rejecting claim 79; furthermore, **Logan** discloses a processor [*e.g., Fig. 1: 5*]; and a memory [*e.g., Fig. 1: 5*] (*e.g., see Column 3, Lines 30-60*).

Regarding claim 90, this claim is rejected by the reasoning applied in rejecting claim 80.

Regarding claim 93, this claim is rejected by the reasoning applied in rejecting claim 83.

Regarding claim 94, this claim is rejected by the reasoning applied in rejecting claim 84.

Regarding claim 96, this claim is rejected by the reasoning applied in rejecting claim 86.

Regarding claim 97, this claim is rejected by the reasoning applied in rejecting claim 87.

Regarding claim 98, this claim is rejected by the reasoning applied in rejecting claim 88.

Regarding claim 69, this claim is rejected by the reasoning applied in rejecting claims 79 and 89; furthermore, **Adair** discloses a cover [*e.g.*, *Fig. 4: 59*] (*e.g.*, *see Column 5, Line 59 - Column 6, Line 37*).

Regarding claim 70, this claim is rejected by the reasoning applied in rejecting claim 80.

Regarding claim 73, this claim is rejected by the reasoning applied in rejecting claim 83.

Regarding claim 74, this claim is rejected by the reasoning applied in rejecting claim 84.

Regarding claim 76, this claim is rejected by the reasoning applied in rejecting claim 86.

Regarding claim 77, this claim is rejected by the reasoning applied in rejecting claim 87.

Regarding claim 78, this claim is rejected by the reasoning applied in rejecting claim 88.

Regarding claim 99, the **AAPA** discloses said border [*e.g.*, *Fig. 2: 210*] is operable to conceal at least one component [*e.g.*, *Fig. 2: 160*] of said portable electronic device (*e.g.*, *see Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21*).

36. *Claims 71, 72, 81, 82, 91, and 92* are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over *claims 1-18 of U.S. Patent No. 6,992,659* in view of *Adair (US 5,812,188 A)*, *Logan et al (US 4,821,029 A)*, the instant *Application's Admitted Prior Art (AAPA)*, *Nakanishi et al (US 6,590,622 B1)*, and *Conroy et al (US 5,686,705 A)*.

Regarding claim 81, *U.S. Patent No. 6,992,659*, *Adair*, *Logan*, the *AAPA*, and *Nakanishi* do not appear to expressly disclose *a conductive polymer*, as instantly claimed.

However, the *AAPA* discloses said digitizer comprises a conductive film made of indium tin oxide [e.g., *Fig. 1; 120*] disposed above a digitizing element [e.g., *Fig. 1; 130*] (e.g., see *Fig. 2; Page 3, Line 11 - Page 5, Line 11*).

Moreover, *Conroy* discloses substituting conductive digitizer wires with a conductive polymer composite, such as conductive plastic (*see the entire document, including Column 3, Lines 9-30, Column 4, Lines 21-32, Column 5, Line 55 - Column 6, Line 10, and Column 8, Lines 37-40*).

*U.S. Patent No. 6,992,659*, *Adair*, *Logan*, the *AAPA*, *Nakanishi*, and *Conroy* are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use *Conroy's* conductive polymer in place of the *AAPA's* conductive film, so as to provide a rugged and reliable electronic device.

Regarding claim 82, the **AAPA** discloses said digitizer further comprises a plurality of electrodes [*e.g.*, *Fig. 1; 160*] and traces [*e.g.*, *Fig. 1; 180*] operable to register a point of contact when said conductor makes contact with said digitizing element (*e.g.*, *Page 3, Line 11 - Page 5, Line 11*).

Regarding claim 91, this claim is rejected by the reasoning applied in rejecting claim 81.

Regarding claim 92, this claim is rejected by the reasoning applied in rejecting claim 82.

Regarding claim 71, this claim is rejected by the reasoning applied in rejecting claim 81.

Regarding claim 72, this claim is rejected by the reasoning applied in rejecting claim 82.

37. *Claims 75, 85, and 95 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,992,659 in view of Adair (US 5,812,188 A), Logan et al (US 4,821,029 A), the instant Application's Admitted Prior Art (AAPA), Nakanishi et al (US 6,590,622 B1), and Barkan et al (US 3,757,322 A).*

Regarding claim 85, **Adair** discloses a plurality of buttons [*e.g.*, *Fig. 4: 56*] (*e.g.*, *see Column 5, Line 59 - Column 6, Line 37*).

And the **AAPA** discloses said cover comprises indentations [*e.g.*, *Fig. 1; 150, icon sheet*] to indicate button functions (*e.g.*, *see Page 3, Line 11 - Page 5, Line 11*).

However, should it be shown that **Adair, Logan**, and the **AAPA** do not disclose *button indentations*, as instantly claimed:

**Barkan** discloses a plurality of buttons [*e.g., Fig. 3: 46*]; and  
wherein a first cover [*e.g., Fig. 3: 58*] comprises indentations [*e.g., Fig. 3: formed between 60, 62*],

wherein each of said indentations corresponds to a respective button of said plurality of buttons (*see the entire document, including Fig. 5; Column 14, Line 65 - Column 18, Line 65*).

**U.S. Patent No. 6,992,659, Adair, Logan**, the **AAPA**, **Nakanishi**, and **Barkan** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Barkan's** button indentations to correspond with **Adair's** buttons, so as to provide a tactile feel to the user for distinguishing between adjacent buttons.

Regarding claim 95, this claim is rejected by the reasoning applied in rejecting claim 85.

Regarding claim 75, this claim is rejected by the reasoning applied in rejecting claim 85.

38. *Claims 69, 70, 73-80, 83-90, 93-99* are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over *claims 1-33 of U.S. Patent No. 7,348,964* in view of **Adair (US 5,812,188 A)**, **Logan et al (US 4,821,029 A)**, the instant **Application's Admitted Prior Art (AAPA)**, and **Nakanishi et al (US 6,590,622 B1)**.

Regarding claim 79, ***U.S. Patent No. 7,348,964*** discloses a portable electronic device comprising:

a housing comprising a first cover [*e.g., single-piece bezel-less top cover*];  
a display device [*e.g., liquid crystal display*] disposed in said housing,  
wherein said display device comprises a display surface and a first side,  
wherein said display surface and said first side are not planar;  
a digitizer [*e.g., pressure activated sensors*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,  
wherein a first portion of said first cover overlaps said display surface,  
wherein a second portion of said first cover overlaps said first side of said display device,  
and  
wherein said first cover comprises at least one bend joining said first and second portions (*e.g., see claims 1-33*).

Should it be shown that ***U.S. Patent No. 7,348,964*** discloses a *digitizer*, as instantly claimed, with insufficient specificity:

***Adair*** discloses a portable electronic device [*e.g., Fig. 4*] comprising:

a housing comprising a first cover [e.g., *Fig. 4: 59*];  
a display device [e.g., *Fig. 4: 54*] disposed in said housing,  
wherein said display device comprises a display surface [e.g., *Fig. 4: top surface of 54*]  
and a first side [e.g., *Fig. 4: left-side surface of 54*],  
wherein said display surface and said first side are not planar;  
a digitizer [e.g., *Fig. 4: 56*] disposed above said display device and operable to provide  
an input to said portable electronic device in response to a deformation of said digitizer; and  
wherein said first cover is disposed above said digitizer and operable to enable said  
deformation of said digitizer responsive to a contact with said first cover,  
wherein a first portion [e.g., *Fig. 4: top portion of 59*] of said first cover overlaps said  
display surface,  
wherein a second portion [e.g., *Fig. 4: left-side portion of 59*] of said first cover overlaps  
said first side of said display device, and  
wherein said first cover comprises at least one bend [e.g., *Fig. 4: 59 at 42*] joining said  
first and second portions (*see the entire document, including Column 5, Line 59 - Column 6, Line 37*).

***U.S. Patent No. 7,348,964*** and ***Adair*** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply ***Adair's*** digitizer arrangement and control techniques to ***U.S. Patent No. 7,348,964's*** device, so as to provide touch sensitive endoscopic functionalities.



Should it be shown that **Adair** discloses the subject matter of a *digitizer disposed above said display device*, as instantly claimed, with insufficient specificity:

**Logan** discloses a portable electronic device [e.g., *Fig. 1*] comprising:

a display device [e.g., *Fig. 1: 1'*]; and

a digitizer [e.g., *Fig. 1"*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (*see the entire document, including Column 3, Lines 30-60*).

**U.S. Patent No. 7,348,964, Adair** and **Logan** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply **Logan's** digitizer arrangement and control techniques to **Adair's** device, so as to provide a flexible touch screen process and system that incorporates, together with the appropriate processing, a self-sufficiency of control to the touch screen.

Should it be shown that even **Logan** discloses the subject matter of a *digitizer disposed above said display device*, as instantly claimed, with insufficient specificity:

The **AAPA** discloses a portable electronic device [e.g., *Fig. 1*] comprising:

a housing comprising a first cover [e.g., *Fig. 1: 105, 110*];

a display device [e.g., *Fig. 1: 140*] disposed in said housing,

wherein said display device comprises a display surface [e.g., *Fig. 1: top surface of 140*] and a first side [e.g., *Fig. 1: left-side surface of 140*],

wherein said display surface and said first side are not planar;

a digitizer [e.g., *Fig. 1: 120, 130, 170*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion [e.g., *Fig. 1: 110*] of said first cover overlaps said display surface,

wherein a second portion [e.g., *Fig. 1: 105*] of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend [e.g., *Fig. 1: 105's bend*] joining said first and second portions (*see the entire document, including Fig. 2; Page 1, Line 11 - Page 5, Line 21*).

***U.S. Patent No. 7,348,964, Adair, Logan***, and the ***AAPA*** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply the ***AAPA's*** digitizer arrangement and control techniques to ***Adair's*** device, so as to make use of a typical, well known, and commonly understood resistive digitizer mechanism.

In one embodiment, **Adair** states, "*As best seen in FIG. 4a, monitor module 50 is completely encapsulated within a sealing material 59 such as acrylic so that the monitor module is isolated from the sterile field of the operating room*" (see Column 6, Lines 7-11).

**Adair** discloses, "*The enclosure may be flexible or rigid... In some embodiments, the body is flexible*" (see the Abstract). **Adair** also claims, "*a sterile enclosure made of a flexible material substantially impervious to liquid and gas*" (see claim 1).

Therefore, **Adair's** flexible cover will be operable to enable deformation of the underlying digitizer, as instantly claimed.

However, should it be shown that **Adair** discloses the subject matter of *a cover operable to enable deformation of the digitizer*, as instantly claimed, with insufficient specificity:

**Nakanishi** discloses a portable electronic device (e.g., see Column 7, Line 65) comprising:

a housing comprising a first cover [e.g., Fig. 1: *movable/deformable/pressable acrylic resin layer 19*];

a display device (e.g., see Column 1, Lines 5-15) disposed in said housing,

wherein said display device comprises a display surface and a first side,

wherein said display surface and said first side are not planar;

a digitizer [e.g., Fig. 1: *movable conductor 18 + fixed conductor 14*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (e.g., see Column 1, Lines 43-57); and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover (*e.g.*, see *Column 1, Lines 43-57 and Column 3, Lines 50-52*),

wherein a first portion of said first cover overlaps said display surface (*see the entire document, including Column 1, Line 5 - Column 2, Line 46 and Column 3, Line 10 - Column 8, Line 10*).

*U.S. Patent No. 7,348,964, Adair, Logan*, the *AAPA*, and *Nakanishi* are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use *Nakanishi's* flexibly deformable resin layer to form *Adair's* cover, so as to protect the underlying digitizer from damage due to finger and/or stylus presses (*e.g.*, see *Nakanishi: Column 3, Line 44*).

Regarding claim 80, *Adair* discloses said first cover further comprises a flexible thermoplastic film [*e.g.*, *Fig. 4: 59*] and a supporting structure [*e.g.*, *Fig. 4: 42*] coupled to said flexible thermoplastic film (*e.g.*, see *Column 5, Line 59 - Column 6, Line 37*).

Regarding claim 83, *Adair* discloses said first cover further comprises a border [*e.g.*, *Fig. 4: 59*] (*e.g.*, see *Column 5, Line 59 - Column 6, Line 37*).

Regarding claim 84, the **AAPA** discloses said digitizer comprises electrical traces [*e.g.*, *Fig. 1; 180*] and circuits [*e.g.*, *Fig. 1; 160*] along a periphery, and wherein a border [*e.g.*, *Fig. 1; 105*] overlaps said electrical traces and circuits (*e.g.*, *see Fig. 2; Page 1, Line 11 - Page 5, Line 21*).

Regarding claim 85, **U.S. Patent No. 7,348,964** discloses a plurality of buttons; and wherein a first cover comprises indentations [*e.g.*, *indentations*], wherein each of said indentations corresponds to a respective button of said plurality of buttons (*e.g.*, *see claim 20*).

Regarding claim 86, **Adair** discloses said housing further comprises a second cover [*e.g.*, *Fig. 4: 44*], and wherein said first cover and said second cover enclose said display device and said digitizer (*e.g.*, *see Column 5, Line 59 - Column 6, Line 37*).

Regarding claim 87, **Adair** discloses said first cover comprises at least one transparent portion (*e.g.*, *see Column 5, Line 59 - Column 6, Line 37*).

Regarding claim 88, the **AAPA** discloses said digitizer comprises a resistive digitizer (*e.g.*, *see Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21*).

Regarding claim 89, this claim is rejected by the reasoning applied in rejecting claim 79; furthermore, **Logan** discloses a processor [e.g., *Fig. 1: 5*]; and  
a memory [e.g., *Fig. 1: 5*] (e.g., see *Column 3, Lines 30-60*).

Regarding claim 90, this claim is rejected by the reasoning applied in rejecting claim 80.

Regarding claim 93, this claim is rejected by the reasoning applied in rejecting claim 83.

Regarding claim 94, this claim is rejected by the reasoning applied in rejecting claim 84.

Regarding claim 95, this claim is rejected by the reasoning applied in rejecting claim 85.

Regarding claim 96, this claim is rejected by the reasoning applied in rejecting claim 86.

Regarding claim 97, this claim is rejected by the reasoning applied in rejecting claim 87.

Regarding claim 98, this claim is rejected by the reasoning applied in rejecting claim 88.

Regarding claim 69, this claim is rejected by the reasoning applied in rejecting claims 79 and 89; furthermore, **Adair** discloses a cover [e.g., *Fig. 4: 59*] (e.g., see *Column 5, Line 59 - Column 6, Line 37*).

Regarding claim 70, this claim is rejected by the reasoning applied in rejecting claim 80.

Regarding claim 73, this claim is rejected by the reasoning applied in rejecting claim 83.

Regarding claim 74, this claim is rejected by the reasoning applied in rejecting claim 84.

Regarding claim 75, this claim is rejected by the reasoning applied in rejecting claim 85.

Regarding claim 76, this claim is rejected by the reasoning applied in rejecting claim 86.

Regarding claim 77, this claim is rejected by the reasoning applied in rejecting claim 87.

Regarding claim 78, this claim is rejected by the reasoning applied in rejecting claim 88.

Regarding claim 99, the *AAPA* discloses said border [*e.g.*, *Fig. 2: 210*] is operable to conceal at least one component [*e.g.*, *Fig. 2: 160*] of said portable electronic device (*e.g.*, *see Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21*).

39. Claims 71, 72, 81, 82, 91, and 92 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over *claims 1-33 of U.S. Patent No. 7,348,964* in view of *Adair (US 5,812,188 A)*, *Logan et al (US 4,821,029 A)*, the instant *Application's*

**Admitted Prior Art (AAPA), Nakanishi et al (US 6,590,622 B1), and Conroy et al (US 5,686,705 A).**

Regarding claim 81, **U.S. Patent No. 7,348,964, Adair, Logan**, the **AAPA**, and **Nakanishi** do not appear to expressly disclose *a conductive polymer*, as instantly claimed.

However, the **AAPA** discloses said digitizer comprises a conductive film made of indium tin oxide [e.g., Fig. 1; 120] disposed above a digitizing element [e.g., Fig. 1; 130] (e.g., see Fig. 2; Page 3, Line 11 - Page 5, Line 11).

Moreover, **Conroy** discloses substituting conductive digitizer wires with a conductive polymer composite, such as conductive plastic (see the entire document, including Column 3, Lines 9-30, Column 4, Lines 21-32, Column 5, Line 55 - Column 6, Line 10, and Column 8, Lines 37-40).

**U.S. Patent No. 7,348,964, Adair, Logan, AAPA, Nakanishi**, and **Conroy** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Conroy's** conductive polymer in place of the **AAPA's** conductive film, so as to provide a rugged and reliable electronic device.

Regarding claim 82, the **AAPA** discloses said digitizer further comprises a plurality of electrodes [e.g., Fig. 1; 160] and traces [e.g., Fig. 1; 180] operable to register a point of contact when said conductor makes contact with said digitizing element (e.g., Page 3, Line 11 - Page 5, Line 11).



Regarding claim 91, this claim is rejected by the reasoning applied in rejecting claim 81.

Regarding claim 92, this claim is rejected by the reasoning applied in rejecting claim 82.

Regarding claim 71, this claim is rejected by the reasoning applied in rejecting claim 81.

Regarding claim 72, this claim is rejected by the reasoning applied in rejecting claim 82.

#### ***Response to Arguments***

40. Applicant's arguments filed on *30 June 2010* have been fully considered but they are not persuasive.

The Applicant contends the previously relied upon prior art, "*fails to teach or suggest the elements of 'a cover disposed above said digitizer and operable to enable said deformation of said digitizer in response to a contact with said cover' "*" (see Pages 13-16 of the Response filed on *30 June 2010*). The Applicant argues that ***Adair's*** cover is rigid and not flexible. However, the examiner respectfully disagrees.

In response to applicant's argument that ***Adair's*** cover is not operable to enable deformation of the underlying digitizer, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to

patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

In one embodiment, **Adair** states, "*As best seen in FIG. 4a, monitor module 50 is completely encapsulated within a sealing material 59 such as acrylic so that the monitor module is isolated from the sterile field of the operating room*" (see Column 6, Lines 7-11).

**Adair** discloses, "*The enclosure may be flexible or rigid... In some embodiments, the body is flexible*" (see the Abstract). **Adair** also claims, "*a sterile enclosure made of a flexible material substantially impervious to liquid and gas*" (see claim 1).

Therefore, **Adair's** flexible cover will be operable to enable deformation of the underlying digitizer, as instantly claimed.

However, should it be shown that **Adair** discloses the subject matter of *a cover operable to enable deformation of the digitizer*, as instantly claimed, with insufficient specificity:

**Nakanishi** discloses a portable electronic device (*e.g., see Column 7, Line 65*) comprising:

a housing comprising a first cover [*e.g., Fig. 1: movable/deformable/pressable acrylic resin layer 19*];

a display device (*e.g., see Column 1, Lines 5-15*) disposed in said housing,  
wherein said display device comprises a display surface and a first side,  
wherein said display surface and said first side are not planar;

a digitizer [e.g., *Fig. 1: movable conductor 18 + fixed conductor 14*] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (e.g., *see Column 1, Lines 43-57*); and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover (e.g., *see Column 1, Lines 43-57 and Column 3, Lines 50-52*),

wherein a first portion of said first cover overlaps said display surface (*see the entire document, including Column 1, Line 5 - Column 2, Line 46 and Column 3, Line 10 - Column 8, Line 10*).

Applicant's arguments with respect to *claims 69-99* have been considered but are moot in view of the new ground(s) of rejection.

By such reasoning, rejection of the claims is deemed necessary, proper, and thereby maintained at this time.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571)272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Piziali/  
Primary Examiner, Art Unit 2629  
24 August 2010